

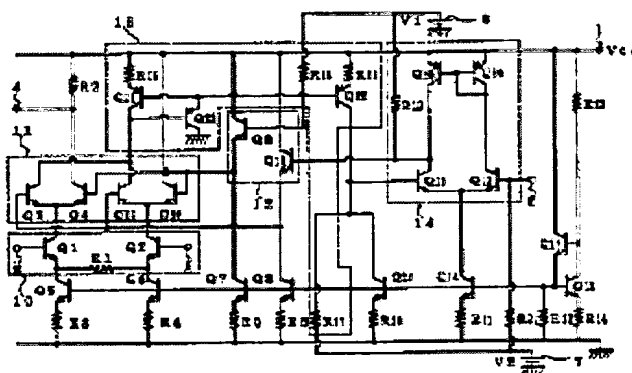
VARIABLE GAIN AMPLIFIER

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- International: H03G3/30; H03F3/45
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Abstract of JP6053766

PURPOSE: To obtain a variable gain amplifier having linearity over the entire gain range by controlling the adjustment of the gain based on a sum of output currents of a differential amplifier circuit.

CONSTITUTION: A current detection circuit 13 detecting an output current flowing to transistors (TRs) Q1, Q2 of a differential amplifier circuit through TRs Q3, Q19 is added to the amplifier. Then the current flowing to the TRs Q3, Q19 is detected by TRs Q21, Q22, Q23, and the detected current is changed into a voltage by a resistor 17. A feedback circuit 14 giving a feedback so that an external gain adjustment voltage and the voltage across the resistor 17 are equal is formed by TRs Q12, Q13, Q25, Q26. A comparator circuit consists of the circuit 14 and a control signal output circuit 12. Then a control signal is outputted from the TRs Q9, Q10 so that a voltage across the resistor R17 and the gain adjustment voltage are equal by the comparator circuit and the gain is adjusted by controlling the TRs Q3, Q4, Q19, Q20 of the gain adjustment circuit 11.



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